is a sufficient guarantee of standard, and that to have any certificate affixed to its labels would be derogatory to its dignity. They all admitted the existence of the evils spoken of, but thought a method of condemning unworthy products would be more desirable. From the statements made it was evident that some of those who spoke had not studied the matter sufficiently to understand its details.

On the pro side, Mr. Alpers, of New York, spoke for the retail pharmacists, with whom he had discussed the matter, and said he thought such an organization, if it could be formed, would be the greatest blessing that could happen to the pharmacists of the country. As indicating the necessity for some such undertaking, he cited an experience of his own, the week before: In filling a prescription, he found that he did not have sufficient of a certain U. S. P. fluid extract, and so sent to a nearby store to borrow a few ounces; when mixed the two lots gave a muddy precipitate, though they were supposedly identical. He said they were made by two houses, representatives from which had

spoken against the proposed bureau at that hearing.

Dr. Rusby called attention to the statement of Parke, Davis & Co., for the reason they gave for objecting to the proposed organization. They stated that they had expended many hundreds of thousands of dollars in an effort to bring about a general belief that theirs was the only house whose goods were absolutely reliable, and that if such a bureau were organized, it would show by certificate that many of the preparations of the smaller manufacturers were also standard, and therefore, that they would lose business. Their claim, he stated, was either true or false; if true, it argued great need for a bureau, and if false, then they had expended large sums in wholesale deception.

The council took the matter under advisement and through a sub-committee, recommended that the committee be continued to go on with the work, and that if a plan satisfactory to the two associations and the United States Government authorities be

developed, that it be adopted.

BOOK REVIEWS.

Radium, and other Radio-Active Substances; Polonium, Actinium, and Thorium, with a Consideration of Phosphorescent and Fluorescent Substances, the Properties and Applications of Selenium and the Treatment of Disease by the Ultraviolet Light. By William J. Hammer, consulting electrical engineer. A lecture delivered at a meeting of the American Institute of Electrical Engineers, and the American Electrochemical Society, New York, April 17th, 1903. New York: D. Van Nostrand Company, 1903. Price \$1.00.

This little book is well worth the very careful reading of anyone interested in the subject of radioactivity and the recent discoveries and advances that have been made from the initial work of Crookes, to the recent discovery of radium by Becquerel, and its isolation by Prof. Curie. In places the history of the advancing discoveries and the account of how one thing developed from another, apparatus being devised from step to step, with ever-increasing delicacy, reads almost like a romance. And when the foreground has been cut away and we come to the data relating to radium itself, we find the interest constantly growing. A system of measurements has been carefully worked out and "Where substances are referred to as possessing certain 'radioactivity,' for instance 300, it means that the radiations are 300 times as powerful as the original radiations emanating from uranium which were discovered by Becquerel and which are taken as a standard of comparison, In 1898 Prof. Curie "succeeded in isolating a second substance, found in pitchblend, which was associated with barium and possessed many of the chemical and other characteristics of that substance, and to this they gave the name of 'Radium.'" Of radium and these other radioactive substances, many curious and intensely interesting facts are already known. "Within the past month great interest has been attracted by the statement made by Prof. Curie and Laborde that radium maintains its own temperature at 1.5 Centegrade above its surroundings, this being equivalent to saying that half a pound of radium salt would evolve in one hour sufficient heat to equal that caused by the burning of one-third of a foot of hydrogen gas; that the heat evolved by pure radium is sufficient to melt more than its own weight of ice every hour." Of it Lord Kelvin has said "that the discovery of Bacquerel radiations, had placed the first question mark against the principle of conservation of energy which has been placed against it since that principle was enunciated." Only two or three samples of pure radium have been isolated. From one of these, a

minute quantity, weighing between two and three-hundredths of a gramme, it was possible to determine the fact that radium is a new element, with an atomic weight of 225. "In answer to my inquiry as to its value, Prof. Curie said that 100,000 francs could not purchase this tiny sample." "As indicative of the enormous difficulties encountered in procuring radium, it is interesting to note that it takes 5000 tons of uranium residues to produce a kilo (2.2 pounds) of radium." The cost of merely handling the uranium residues is said to be approximately \$2000 per ton. The whole record of the physical and physiological activity of radium is fascinating, but unfortunately we cannot publish it all, or at greater length.

—P. M. J.

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Volume 2 of the 13th series of the International Clinics, is certainly well up to the standard of this valuable set of essays and clinical lectures. Opportunely, at this season of the year, much space has been devoted to diarrhoea and kindred disturbances. Where the material is all so good it seems unfair to comment on one or two things only, yet it is impossible not to favorably mention the excellent articles on Endocarditis in Childhood, by F. J. Paynton, of London, and the very common sense essay of Alexander Haig, on the Etiology, Prevention and Treatment of a Common Cold. The suggestions in the latter article, relative to the relations noted between a uricacid free diet and absence or cure of cold, are certainly worthy of careful consideration by all.

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—P. M. J.